

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

**Description:** Water-borne sewage and non-point runoff from housing and urban areas that include nutrients, toxic chemicals and/or sediments

**Species Associated With This Stressor:** **Total SGCN: 1: 12 2: 24 3:**

Class	<i>Actinopterygii</i> (Ray-finned Fishes)	SGCN Category
Species: <i>Alosa pseudoharengus</i> (Alewife)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen.		
Species: <i>Alosa sapidissima</i> (American Shad)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen.		
Species: <i>Salmo salar</i> (Atlantic Salmon)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Freshwater Atlantic salmon habitat near populated areas will be affected. As populations increase this can be minimized. Spatial extend is entire state of Maine		
Species: <i>Acipenser oxyrinchus</i> (Atlantic Sturgeon)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen.		
Species: <i>Alosa aestivalis</i> (Blueback Herring)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen.		
Species: <i>Coregonus clupeaformis</i> (Lake Whitefish)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Residential development on whitefish lakes can affect water quality and contribute to excessive nutrient run-off.		
Species: <i>Osmerus mordax</i> (Rainbow Smelt)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Non-point source pollution (heavy metals and nutrient inputs) has been directly related to declining smelt runs. Likelihood is high and increasing (high certainty), current spatial extent is most severe in Southern Maine, but expanding along coast, so actionability is moderate, i.e. the threat can be minimized in newly developing areas.		
Species: <i>Prosopium cylindraceum</i> (Round Whitefish)		2
Severity: Moderate Severity	Actionability: Actionable with difficulty	
Notes: Residential development on whitefish lakes can affect water quality and contribute to excessive nutrient run-off.		
Species: <i>Acipenser brevirostrum</i> (Shortnose Sturgeon)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen.		

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

### Level 2 Threat: Domestic and Urban Waste Water

Class	<i>Actinopterygii</i> (Ray-finned Fishes)	SGCN Category
Species: <i>Morone saxatilis</i> (Striped Bass)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: The specific causes of impact are increased non-point source pollution (heavy metals and nutrient inputs), increased turbidity, and lower dissolved oxygen. Likelihood is high and increasing (high certainty), current spatial extent is Southern Maine, but expanding along coast, so actionability is moderate, i.e. the threat can be minimized in newly developing areas.		
Species: <i>Etheostoma fusiforme</i> (Swamp Darter)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Nutrient loading from residential runoff degrades water quality, affects vegetation, and dissolved oxygen levels.		
Species: <i>Pseudopleuronectes americanus</i> (Winter Flounder)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Although winter flounder appear to withstand changes in water quality based on lab studies, their primary spawning habitat is submerged aquatic vegetation like eelgrass that is highly sensitive to declines in water quality, especially nutrient inputs. Eelgrass die-offs in Maine in the 1970s are correlated with reductions in winter flounder populations.		
Class	<i>Amphibia</i> (Amphibians)	SGCN Category
Species: <i>Lithobates pipiens</i> (Northern Leopard Frog)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Aquatic larvae are sensitive to toxins, excessive nutrients, and pharmaceutical pollution		
Class	<i>Asteroidea</i> (Sea Stars)	SGCN Category
Species: <i>Asterias rubens</i> (Common Sea Star)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Species: <i>Crossaster papposus</i> (Common Sun Star)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including heavy metals and pesticides), and/or sediments originating from water-borne sewerage and non-point run-off from housing and urban areas. Likelihood is high and increasing (high certainty), current spatial extent is most severe in Southern Maine, but expanding along coast, so actionability is moderate, i.e. the threat can be minimized in newly developing areas expanding into the geospatial range of this species..		
Species: <i>Asterias forbesi</i> (Forbes's Starfish)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

### Level 2 Threat: Domestic and Urban Waste Water

Class	<i>Asteroidea</i> (Sea Stars)	SGCN Category
Species: <i>Solaster endeca</i> (Purple Sunstar)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including heavy metals and pesticides), and/or sediments originating from water-borne sewerage and non-point run-off from housing and urban areas. Likelihood is high and increasing (high certainty), current spatial extent is most severe in Southern Maine, but expanding along coast, so actionability is moderate, i.e. the threat can be minimized in newly developing areas expanding into the geospatial range of this species.		
Species: <i>Stephanasterias albula</i> (White Sea Star)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Class	<i>Bivalvia</i> (Marine And Freshwater Molluscs)	SGCN Category
Species: <i>Alasmidonta varicosa</i> (Brook Floater)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Impacts to water quality from point and non-point sources; direct impacts of toxins to mussels and/or fish hosts		
Species: <i>Leptodea ochracea</i> (Tidewater Mucket)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Impacts to water quality from point and non-point sources; direct impacts of toxins to mussels and/or fish hosts		
Species: <i>Lampsilis cariosa</i> (Yellow Lampmussel)		1
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Impacts to water quality from point and non-point sources; direct impacts of toxins to mussels and/or fish hosts		
Class	<i>Echinoidea</i> (Sea Urchins)	SGCN Category
Species: <i>Strongylocentrotus droebachiensis</i> (Green Sea Urchin)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Class	<i>Gastropoda</i> (Aquatic And Terrestrial Snails)	SGCN Category
Species: <i>Stagnicola mighelsi</i> (Bigmouth Pondsnail)		1
Severity: Moderate Severity	Actionability: Highly actionable	
Notes: Water quality impacts from camps and other development may negatively affect populations which occur predominantly at lakes with low camp densities		
Class	<i>Holothuroidea</i> (Sea Cucumbers)	SGCN Category
Species: <i>Cucumaria frondosa</i> (Orange-footed Sea Cucumber)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

Class	<i>Holothuroidea</i> (Sea Cucumbers)	SGCN Category
Species: <i>Psolus fabricii</i> (Psolus)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Species: <i>Psolus phantapus</i> (Psolus)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Species: <i>Thyonidium drummondii</i> (Sea Cucumber)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		
Class	<i>Insecta</i> (Insects)	SGCN Category
Species: <i>Enallagma laterale</i> (New England Bluet)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Aquatic larvae and submerged aquatic vegetation sensitive to water quality		
Species: <i>Gomphus quadricolor</i> (Rapids Clubtail)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Aquatic larvae sensitive to water quality		
Species: <i>Enallagma pictum</i> (Scarlet Bluet)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Aquatic larvae and submerged aquatic vegetation sensitive to water quality		
Species: <i>Lanthus vernalis</i> (Southern Pygmy Clubtail)		2
Severity: Moderate Severity	Actionability: Moderately actionable	
Notes: Headwater streams receive limited protections; aquatic larvae sensitive to water quality		
Class	<i>Malacostraca</i> (Crustaceans)	SGCN Category
Species: <i>Pandalus borealis</i> (Northern Shrimp)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Crustacean larvae and adults are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments.		
Species: <i>Lebbeus polaris</i> (Polar Lebbeid Shrimp)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Crustacean larvae and adults are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments.		
Species: <i>Lebbeus groenlandicus</i> (Spiny Lebbeid Shrimp)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Crustacean larvae and adults are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments.		
Class	<i>Merostomata</i> (Horseshoe Crabs And Sea Scorpions)	SGCN Category

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

Class	<i>Merostomata</i> (Horseshoe Crabs And Sea Scorpions)	SGCN Category
Species: <i>Limulus polyphemus</i> (Horseshoe Crab)		1
Severity: Severe	Actionability: Moderately actionable	
Notes: Crustacean larvae and adults are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments.		
Class	<i>Ophiuroidea</i> (Brittle Stars)	SGCN Category
Species: <i>Gorgonocephalus arcticus</i> (Northern Basket Starfish)		2
Severity: Severe	Actionability: Moderately actionable	
Notes: Echinoderm larvae are exceptionally sensitive to excessive nutrients, toxic chemicals (including pesticides and chemical therapeutants), and/or sediments. Adults are sensitive, but comparatively to larvae, less effected.		

#### Habitats Associated With This Stressor:

##### Macrogroup Central Hardwood Swamp

Habitat System Name: North-Central Interior Wet Flatwoods

Notes: Pollution from poorly buffered development

##### Macrogroup Emergent Marsh

Habitat System Name: Laurentian-Acadian Freshwater Marsh

Notes: Runoff from adjacent development may add excess nutrients, sediment, heavy metals, etc.

##### Macrogroup Intertidal Bedrock

Habitat System Name: High Intertidal

Notes: Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

Habitat System Name: Low-Intertidal

Notes: Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

Habitat System Name: Mid-Intertidal

Notes: Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Intertidal Gravel Shore

Habitat System Name: High Intertidal

Notes: Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

##### Macrogroup Intertidal Gravel Shore

###### Habitat System Name: Lower Intertidal

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Mid-Intertidal

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Intertidal Mollusc Reefs

###### Habitat System Name: Gastropod Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Mussel Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Oyster Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Intertidal Mudflat

###### Habitat System Name: Freshwater Tidal Marsh

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Non-Vascular Mudflat

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Submerged Aquatic Vegetation

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Intertidal Sandy Shore



## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

##### Macrogroup Intertidal Sandy Shore

###### Habitat System Name: Sand Beach

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Sand Flat

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Submerged Aquatic Vegetation

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Intertidal Tidal Marsh (peat-forming)

###### Habitat System Name: Acadian Coastal Salt Marsh

**Notes:** Freshwater tidal marshes might be impacted more than salt marshes where ocean can make pollutants more diffuse. Eutrophication... Deegan et al. 2012

###### Habitat System Name: Coastal Plain Tidal Marsh

**Notes:** Freshwater tidal marshes might be impacted more than salt marshes where ocean can make pollutants more diffuse. Eutrophication... Deegan et al. 2012

##### Macrogroup Intertidal Water Column

###### Habitat System Name: Confined Channel

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Embayment

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Exposed Shore

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Lakes and Ponds

###### Habitat System Name: Dystrophic

###### Habitat System Name: Eutrophic

###### Habitat System Name: Mesotrophic or Intermediate

###### Habitat System Name: Oligotrophic

##### Macrogroup Northeastern Floodplain Forest

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

##### Macrogroup Northeastern Floodplain Forest

**Habitat System Name:** Laurentian-Acadian Floodplain Systems

**Notes:** More of a concern in developed parts of &nbsp;state

##### Macrogroup Rivers and Streams

**Habitat System Name:** Ephemeral

**Notes:** Impacts likely, but hard to quantify since most ephemeral streams are not mapped

**Habitat System Name:** Headwaters and Creeks

**Habitat System Name:** Large River

**Habitat System Name:** Medium River

**Habitat System Name:** Small River

##### Macrogroup Subtidal Bedrock Bottom

**Habitat System Name:** Bedrock

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

**Habitat System Name:** Erect Epifauna

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

**Habitat System Name:** Kelp Bed

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Subtidal Coarse Gravel Bottom

**Habitat System Name:** Coarse Gravel

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

**Habitat System Name:** Erect Epifauna

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

**Habitat System Name:** Kelp Bed

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Subtidal Mollusc Reefs



## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

##### Macrogroup Subtidal Mollusc Reefs

###### Habitat System Name: Gastropod Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Mussel Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Oyster Reef

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Subtidal Mud Bottom

###### Habitat System Name: Submerged Aquatic Vegetation

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Unvegetated

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Subtidal Pelagic (Water Column)

###### Habitat System Name: Confined Channel

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Nearshore

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Offshore

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

##### Macrogroup Subtidal Pelagic (Water Column)

###### Habitat System Name: Upwelling Zones

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Subtidal Sand Bottom

###### Habitat System Name: Submerged Aquatic Vegetation

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

###### Habitat System Name: Unvegetated

**Notes:** Though this threat can be reduced with the implementation of best management practices, in coastal watersheds, runoff can lead to non-point source pollution of nutrients, fertilizer, sediments, pesticides, vehicle contaminants, etc., which can lead to poor water quality in tidal areas and lead to excessive algal growth (from nutrients) and reduced fitness and/or mortality (toxic contaminants).

##### Macrogroup Wet Meadow-Shrub Marsh

###### Habitat System Name: Introduced Wetland and Riparian Vegetation

**Notes:** Runoff from adjacent development may add excess nutrients, sediment, heavy metals, etc.

###### Habitat System Name: Laurentian-Acadian Wet Meadow-Shrub Swamp

**Notes:** Runoff from adjacent development may add excess nutrients, sediment, heavy metals, etc.

## SGCN and Habitat Stressors

### Level 1 Threat Pollution

#### Level 2 Threat: Domestic and Urban Waste Water

*The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.*